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09/883,963	06/20/2001	Eric Menard	1200.495	4435

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EXAMINER

SHIMIZU, MATSUICHIRO

ART UNIT PAPER NUMBER

2635

DATE MAILED: 10/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/883,963

Applicant(s)

MENARD ET AL.

Examiner

Matsuichiro Shimizu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

*Response to Amendment*

The examiner acknowledges amended claims 7 and 11.

*Specification*

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract should avoid using the phrase "The invention -- " (in first and second sentences) which can be implied.

The abstract exceeds 150 words, and therefore, the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words.

*Claim Rejections – 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambropoulos (5,736,935) in view of Michaels (5,420,925).

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Regarding claim 1, Lambropoulos teaches system for the control of means for locking/unlocking at least one openable panel of a vehicle (Fig. 2, vehicle transceiver C, door lock motor 112 and door unlock motor 114), in particular an automobile, comprising transmission/reception means (3, 4, 5) and memory means (7) (Fig. 2, code registers 100, 102, 104) which are carried by the vehicle and transmission/reception means (9, 10, 11) and memory means (13) (Fig. 1, code registers 50, 52) which are intended to be carried by a user (Fig. 1, transponder A), the transmission/reception means of the vehicle (3, 4, 5) comprising means (3, 6, 7) for transmitting an interrogation signal (col. 6, line 65 to col. 7, line 5, interrogation signal), the transmission/reception means of the user (9, 10, 11) comprising means (12, 13, 14) for being intended to transmit a response signal (col. 7, lines 6-19, reply signal) able to control the actuation of the unlocking of the openable panel (col. 7, lines 6-19, unlock when reply signal matches), characterized in that the memory means (13) and the transmission/reception means (9, 10, 11) of the user form a circular shift register and furthermore comprise means (9, 12, 13, 14) for transmitting a signal in response which signal carries a signature (Fig. 1, col. 4, lines 29-49, security code 50) which is specific to the said transmission/reception means (9, 10, 11) of the user, the transmission/reception means (3, 4, 5) on the vehicle comprising means (6, 7, 8) for

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verifying (Fig. 2, security code-A 100 or -B 102) whether the signal received carries the signature of the transmission means. But Lambropoulos does not disclose system for the control of means for locking/unlocking at least one openable panel of a vehicle, in particular an automobile, comprising the transmission/reception means of the vehicle (3, 4, 5) forming a circular shift register in which is stored a pseudo-random code and comprising means (3, 6, 7) for transmitting an interrogation signal which carries such a pseudo-random code, the transmission/reception means of the user (9, 10, 11) comprising means (12, 13, 14) for de-spreading the signal received if the pseudo-random code carried by the said signal is synchronized with a corresponding pseudo-random code stored in their memory means (13) and the transmission/reception means (9, 10, 11) of the user form a circular shift register and furthermore comprise means (9, 12, 13, 14) for transmitting a signal in response which signal carries a pseudo-random code, the transmission/reception means (3, 4, 5) on the vehicle comprising means (6, 7, 8) for de-spreading the signal received if the pseudo-random code carried by the said response signal is synchronized with a corresponding pseudo-random code stored in their memory means (7).

However, Michaels teaches, in the art of communication system, the control of means for locking/unlocking at least one openable panel of a vehicle, in particular an

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automobile, comprising the transmission/reception means (9, 10, 11) of the user form a circular shift register (col. 3, 38 to col. 5, line 23, cycled shift register 16), and furthermore comprise means (9, 12, 13, 14) for transmitting a signal in response which signal carries a pseudo-random code (col. 3, 38 to col. 5, line 23, cycled shift register 16 containing pseudo-random numbers A-code and B-code), the transmission/reception means (3, 4, 5) on the vehicle comprising means (6, 7, 8) for de-spreading the signal received (col. 7, lines 45-65, de-spreading the signal received associated with synchronization of psuedo-random code) if the pseudo-random code carried by the said response signal is synchronized with a corresponding pseudo-random code stored in their memory means (7) (col. 7, lines 45-65, psuedo-random code in the receiver) for the purpose of providing higher level of security. Furthermore, one of ordinary skill in the art recognizes Lambropoulos teaches two-way communication while Michaels teaches one-way communication using spread spectrum scheme for the purpose of providing higher level of security, and therefore two-way communication using spread spectrum scheme is an enhancement to the two-way communication for the purpose of providing higher level of security. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the transmission/reception means of the vehicle (3, 4,

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5) forming a circular shift register in which is stored a pseudo-random code and comprising means (3, 6, 7) for transmitting an interrogation signal which carries such a pseudo-random code, the transmission/reception means of the user (9, 10, 11) comprising means (12, 13, 14) for de-spreading the signal received if the pseudo-random code carried by the said signal is synchronized with a corresponding pseudo-random code stored in their memory means (13) in the device of Lambropoulos because one ordinary skill recognizes the transmission/reception means of the vehicle (3, 4, 5) forming a circular shift register in which is stored a pseudo-random code and comprising means (3, 6, 7) for transmitting an interrogation signal which carries such a pseudo-random code, the transmission/reception means of the user (9, 10, 11) comprising means (12, 13, 14) for de-spreading the signal received if the pseudo-random code carried by the said signal is synchronized with a corresponding pseudo-random code stored in their memory means (13) for the purpose of providing higher level of security.

Regarding claim 2, Lambropoulos teaches system according to claim 1, characterized in that the interrogation signal transmitted by the transmission/reception means of the vehicle (3, 4, 5) comprises a key code (Fig. 2, interrogation code 104), the response signal transmitted by the transmission/reception



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means (9, 10, 11) of the user comprising a secret code (Fig. 1, security code 50) determined by the said transmission/reception means of the user as a function of the said key code (Fig. 1, received key code matches with stored key code 52).

Regarding claim 3, one of ordinary skill in the art recognizes system according to claim 2, characterized in that the transmission/reception means (3, 4, 5) of the vehicle comprise means (8) for mixing the said key code with the pseudo-random code within the interrogation signal (Fig. 1 of Michaels teaches mixing of CCode with psuedo-random code Acode and Bcode).

Regarding claim 4, one of ordinary skill in the art recognizes system according to claim 2, characterized in that the transmission/reception means (9, 10, 11) of the user comprise means (13) for mixing the said secret code with the pseudo-random code within the response signal (Fig. 1 of Michaels teaches mixing of CCode with psuedo-random code Acode and Bcode; Fig. 1 of Lambropoulos teaches secret code 50).

Regarding claim 5, one of ordinary skill in the art recognizes system according to claim 2, characterized in that the key code and/or the secret code constitutes (constitute) the pseudo-random code of the interrogation signal or response signal (Fig. 1 of Michaels teaches mixing of CCode with psuedo-random code Acode and Bcode; Fig. 1 of Lambropoulos teaches secret code 50)..

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Regarding claim 6, one of ordinary skill in the art recognizes system according to claim 1, characterized in that the signature of the transmission/reception means (9, 10, 11) of the user consists of the pseudo-random code of the response signal (Fig. 1 of Michaels teaches mixing of CCode with psuedo-random code Acode and Bcode; Fig. 1 of Lambropoulos teaches secret code 50 or signature).

Regarding claim 7, one of ordinary skill in the art recognizes system according to claim 1, characterized in that it comprises means for synchronizing the various memory means, prior to the transmission of the interrogation signal (Michaels- col. 7, lines 45-48, synchronize).

Regarding claim 8, Michaels teaches system according to claim 7, characterized in that the transmission/reception means (3, 4, 5) of the vehicle comprise means for self-synchronizing (col. 3, line 64 to col. 4, line 16 and col. 7, lines 45-65, self-synchronizing according to missing count of transmitter) with a pseudo-random code transmitted by the transmission/reception means of the user upon their activation.

Regarding claim 9, Michaels teaches system according to claim 8, characterized in that this pseudo-random code is a shorter code (Fig. 1, Bcode is short

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than Acode) than the pseudo-random code or codes used by the transmission/reception means of the vehicle and of the user after synchronization.

Regarding claim 10, Michael teaches system according to claim 9, characterized in that the pseudo-random code or codes used by the transmission/reception means of the vehicle and of the user after synchronization are 40 bit code (Fig. 1, 40 bit transmitted code associated with psuedo-code). But Michaels does not disclose 127-bit code.

However, Michaels discloses, in the art of vehicle security, that the pseudo-random code or codes used by the transmission/reception means of the vehicle and of the user after synchronization are 40 bit code (Fig. 1, 40 bit transmitted code associated with psuedo-code). Therefore, it would have been obvious to a person skilled in the art at the time of invention was made to include psuedo-random code is 127 bit code as a matter of choice in design because Michaels suggests 40 bit code and one skilled in the art recognizes 127 bit code is a matter of choice in design through routine experimentation in order to achieve optimum two-way communication.

Regarding claim 11, Michaels teaches system according to claim 1, characterized in that the interrogation signals and response signals are RF signals

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modulated by a two-phase NRZ modulation (col. 3, lines 31-35, phase shift keying ,  
frequency shift keying).

*Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is (703) 306-5841. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached on (703-305-4704). The fax phone number for the organization where this application or proceeding is assigned is (703-305-3988).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

Matsuichiro Shimizu

October 1, 2003



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